

# ***The Logic and Mechanism of VR Marketing: Market Shaping in the Perspective of Virtual Reality***

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**Abstract:** With the rapid development of technology, VR technology has become an emerging trend in the field of marketing. This paper explores the application of VR technology in marketing and analyzes its impact on consumer behavior and marketing. It delves into two successful cases of VR in marketing: the Volvo XC90 VR test drive and Audi's virtual showroom, revealing the practical application of VR in improving user engagement and creating a unique shopping experience. VR technology provides an immersive experience that enhances the user's interaction with the product and brand and improves the user's behavior and marketing strategy. VR technology provides an immersive experience that enhances user interaction with products and brands, increasing user retention and advertising effectiveness. VR marketing is more effective than traditional marketing in increasing user engagement, emotional connection, memory, and satisfaction, thus increasing user conversion and loyalty. The article gives the advantages and disadvantages of VR marketing. The advantages of VR marketing are more realistic product demonstrations or trial experiences, the ability to create in-depth, emotional brand storytelling narratives, and expanding global markets and audiences. Its disadvantages are high technology costs, user access thresholds, technical limitations, consumer adaptation issues, and limitations of the experience. In addition, this paper discusses the challenges faced by VR technology in marketing: including user acceptance, quality of experience, clarity of user needs, protection of user rights and interests, and future development potential: improving user education and guidance, optimizing user experience, conducting in-depth research on user needs, and protecting user rights and privacy.

**Keywords:** Virtual Reality, Marketing, Consumer Behavior, Technological Innovation

## **1. Introduction**

Marketing is transforming this digital age due to the ubiquity of virtual reality (VR) technology. This innovative technology is gaining traction as a promising marketing tool that has the potential to shake up traditional advertising methods. D. Eric Boyd and Bernadett Koles discuss in depth the novelty, complexity, and potential conflicts of VR technology in the marketing field in their literature [1]. VR technology has a unique ability to create a body experience and changes the way of interacting with the brand and consumers by providing a new way of creative ways to provide marketing strategies. Giang Barrera, Shah, and Kevin proposed a conceptual framework and research agenda in their

marketing activities papers. These documents have deeply studied the influence of the virtual universe on consumer behavior, brand interaction, and marketing strategies, and proposed a way to successfully market activities in this emerging field [2].

Virtual reality technology has been adopted by familiar names like Volvo and Audi in recent times for their marketing efforts. Carrying out VR techniques helps create an immersive experience, framing the brand image in a more compelling light, and drawing customer attention. It also shows prospects of providing superior product presentations, more promising consumer engagement, and a seamless shopping experience. Nevertheless, despite bringing a range of benefits to marketing, leveraging VR technologies encounters challenges such as high expenses, technical shortcomings, and consumer approval. These factors can directly impact the marketing campaigns' success, determining the effectiveness of VR techniques used.

Therefore, modern marketers must understand the potential and limitations of VR technology and how to effectively integrate it into their marketing strategies. The purpose of this paper is to explore the application of VR technology in marketing and analyze its impact on consumer behavior and marketing strategies. By examining several successful VR marketing cases, this paper explores how VR technology has changed the traditional marketing model, and discusses the challenges it faces in marketing as well as its potential for future development.

This paper adopts the case comparison method as the main research method, selects two representative and influential VR marketing cases, analyzes their background, objectives, strategies, implementation, evaluation, and other processes, summarizes their success experiences and lessons, and compares them with the traditional marketing cases to summarize the characteristics and rules of VR marketing communication mode. This paper, study will start with the similarities and differences between VR marketing communication mode and traditional marketing communication mode in terms of effect, cost, advantages and limitations, and the applicability and differences of VR marketing communication mode in different industries, markets, and consumer groups, and the avoidance of and response to the existing risks and problems of VR marketing communication mode.

In this article, this study has chosen two more typical and successful cases. One is the Volvo XC90 VR Test Drive: Volvo Car Corporation utilized VR technology to provide a virtual test drive experience for its flagship SUV model, the XC90, allowing users to experience details and features inside and outside of the vehicle from the comfort of their own home via Google Carton or other low-cost VR devices. The second is Audi's virtual showroom: the company used VR technology to create a virtual showroom that allows consumers to experience and customize cars in a virtual environment. This experience not only increases user engagement but also provides consumers with a unique car-buying experience.

## **2. Theoretical Overview**

Given the magnitude of the impact of the VR industry on the current market, it is necessary to start from various aspects in terms of literature collection and organization, and the references are categorized into four categories below.

### **2.1. Application of Virtual Reality Technology in Marketing**

According to Juan Chen et al., the use of virtual reality technology in marketing is increasing, especially in creating unique consumer experiences and enhancing brand interactions [3]. Elevux's study also points out that augmented and virtual reality technologies are transforming marketing, especially in terms of increasing consumer engagement and creating personalized experiences [4].

## **2.2. Impact of VR Technology on Consumer Behavior**

Shi Li's study showed that VR technology significantly changed consumers' information acquisition and purchasing behavior [5]. Consumers make different decisions in immersive VR environments than in traditional environments, which has a significant impact on the development of marketing strategies.

## **2.3. Market Development Trend of VR Technology**

The report from the People's Daily Research Institute analyzes the current development status and market size of the VR industry from the global and Chinese perspectives respectively, pointing out the potential of VR technology in the marketing field [6].

## **2.4. Prospects of VR in Marketing**

The promise of VR in marketing, especially in emerging areas such as meta-universes and extended reality, is emphasized in both Hongqiang Wang's and Yue Wang's studies with different marketing examples from actual companies [7, 8].

## **3. Case Presentation**

### **3.1. Audi's Virtual Showroom**

The Audi virtual display room uses VR technology to provide an innovative car purchase experience. In this virtual environment, consumers can personalize cars by selecting colors, internal, and accessories. This immersive experience can not only increase user participation but also increase customer consciousness and brand loyalty. The success of the virtual Audi display room lies in the innovative customer experience. Thanks to VR technology, consumers can experience cars from a new perspective, including test drives in virtual environments. This experience allows customers to understand product functions more deeply and provides Audi with new channels for interaction with customers and collecting feedback. In addition, Audi increases consumers' willingness to buy by offering personalized services, such as custom models and configurations, in a virtual showroom.

### **3.2. Volvo XC90 VR Test Drive**

This case study proves the innovative application of virtual reality (VR) technology in automotive marketing. Through this, Volvo successfully achieved three key goals by combining advanced VR technology with its automotive marketing strategy. First of all, it innovates the product display method and uses VR technology to provide an immersive driving experience, so that potential customers can experience the function of the vehicle and driving experience in a novel way, even if they actually cannot test the driver immediately. Second, strengthen the brand image. This high-tech experience enhances Volvo's image, becomes a senior brand of innovation, and emphasizes its leadership position in technological innovation. Third, improve customer loyalty. The VR test drive provides an interactive and fascinating experience that can increase potential customer interest and participation, thereby increasing sales and brand loyalty.

All in all, Volvo XC90 VR test drive case studies have shown how virtual reality technology is effectively integrated into traditional automotive marketing strategies, providing auto manufacturers with innovative ways to display products, attract customers, and enhance brand image. This case has important reference value for the automotive industry and other industries to include high-tech in marketing strategies.

## 4. Case Study

### 4.1. Impact of VR on the Broader Market Presence

Virtual reality technology provides an immersive experience, which can interact with products, brands, or services. This powerful interaction can increase user participation and retention rate. RACH, A. Scott, R.A study mentioned this, which studied the technical and language adaptation required by VR in marketing, including creating a high-quality immersive experience [9]. In VR, advertising can be more interesting and interactive, thereby improving advertising efficiency. Users are willing to spend more time to interact with advertising.

VR allows brands to tell stories more deeply. Everux research shows that VR can allow brands to tell their stories in a more immersive way so that users can better understand the brand's values and stories [4]. In addition, it allows brands to provide virtual product demonstrations or trial experiences. Using VR, companies can provide virtual product demonstrations or trial experiences, which is more attractive to consumers because they can experience the product in person before the actual purchase.

According to HongLei, VR can allow companies to organize virtual exhibitions and activities at a lower cost and attract global audiences [10]. In addition, VR has an advantage in collecting user behavior and response data, which helps better understand the needs of consumers. It also reduces costs related to organizing sports events. Use VR technology in real-time in the virtual trade exhibition and incident to capture user behavior and response data, which can help better understand consumer demand and preference to optimize marketing strategies.

VR technology can place users in a virtual environment of different locations and cultures, thereby helping the company expand international business and attract global audiences. VR technology has changed marketing, providing an immersive, interactive, and fascinating experience, making it easier for the brand to attract consumers' attention and establish a deeper connection. It can enhance brand image, improve advertising efficiency, and provide consumers with more attractive products and service experiences.

### 4.2. Strengths and Weaknesses of the Case

This study compares the VR marketing communication model with the traditional marketing communication model based on the following four aspects. The VR marketing communication model can increase user engagement, emotional connection, memory, and satisfaction compared to the traditional marketing communication model, thus increasing user conversion and loyalty.

#### 4.2.1. Costs

The VR marketing communication model requires higher technology investment and development costs than the traditional marketing communication model, but the virtual showroom reduces the physical space needed to display cars and the cost of displaying a wide range of models and configurations, such as Audi's virtual showroom.

#### 4.2.2. Advantages

VR marketing communication mode has the following two advantages over traditional marketing communication mode. It can provide a more realistic, specific, and interesting product demonstration or trial experience so that users can experience the product in person before actually purchasing it. For example, the Volvo XC90 VR test drive allows users to feel the details and features inside and outside the car, rather than just looking at pictures or videos. A deeper, more storytelling and emotional brand storytelling can be created so that users can better understand the brand's values and

history. It is possible to expand the global market and audience, attracting consumers from different locations and cultures.

#### **4.2.3. Limitations**

VR marketing communication mode also has the following three limitations compared to traditional marketing communication mode. The acquisition threshold of equipment and VR use requires users to be equipped with appropriate VR equipment and applications, which may increase the threshold and cost of use for users. For example, the Volvo XC90 VR test drive campaign requires users to have a Google carton or other low-cost VR device, which not all users have or are willing to purchase. Technical limitations and consumer adaptability, the quality of the virtual showroom experience is highly dependent on the development of VR technology, such as image clarity and user interface friendliness, and immaturity of the technology may affect the effectiveness of the experience. The VR experience may cause discomfort or aversion to the user, such as vertigo, fear, and isolation, which may affect the user's experience and evaluation. Limitations of the experience, although VR provides an immersive experience, it still cannot fully replicate the feeling of actually driving a car, especially in terms of driving dynamics and vehicle performance.

#### **4.3. Risks and Problems of the VR Marketing Communication Model**

Based on the above comparative analysis, this study concludes that there are four risks and problems with the VR marketing communication model as follows—low user acceptance. VR technology is not mature and popular enough, and some users may hold a skeptical or repulsive attitude toward VR technology and be reluctant to try or use VR products or services. This may lead to limited coverage and influence of VR marketing communication mode—poor user experience. The study by Chen Juan et al. mentions that although VR provides an innovative way of experience, the novelty of the technology may lead to poor user acceptance. Since VR technology still has some technical flaws and safety hazards, some users may experience unpleasant or uncomfortable situations such as vertigo, fear, isolation, lag, and malfunction when using VR products or services. This may lead to a negative impact on the reputation and evaluation of the VR marketing communication model. Unclear user needs. The research shows that the novelty of the technology may lead to problems in users' adaptation to the VR experience, while technical defects may affect the user experience. Meanwhile, users' uncertainty about the function and value of VR products or services may lead to unclear goals for marketing strategies—damage to users' rights and interests. VR technology involves users' personal information and private data, and some users may experience the risk of data leakage or misuse when using VR products or services. This may lead to questions about the trust and legitimacy of VR marketing communication models.

#### **4.4. Discussion of Issues**

In response to the risks and problems mentioned above, the impact of online product reviews on new product sales was mentioned in Chen, Y., Li, X., & Liu, Y study [11]. It may contain an analysis of how consumer reviews, ratings, and feedback influence consumer purchase decisions and product market performance [11]. Therefore, this study makes the following four recommendations. User education and guidance need to be improved. Merchants introduce and publicize the features, advantages, and application scenarios of VR technology to users through various channels and methods to increase users' awareness and interest in VR technology. At the same time, they guide users to use VR products or services correctly and safely through easy-to-understand operating instructions and friendly user interfaces and reduce the threshold and cost of use for users. User experience and satisfaction should be optimized. Through continuous technological improvement and



innovation, the merchant improves the picture quality, smoothness, stability, and safety of the VR products or services, and reduces users' discomfort or aversion. At the same time, through timely feedback and evaluation, collect users' opinions and suggestions, optimize the functions and contents of VR products or services, and improve users' engagement and loyalty. Research user needs and preferences. Through effective market research and data analysis, merchants understand users' needs and preferences for VR products or services, as well as the characteristics and differences of different industries, markets, and consumer groups. Based on user needs and preferences, they should formulate appropriate goals and strategies, and design targeted and attractive VR products or services. To protect user rights and privacy. Through reasonable data collection and use rules, merchants ensure that user's personal information and private data are not leaked or misused. At the same time, through clear legal statements and the sharing of responsibilities, the merchant ensures that the rights and interests of users are not jeopardized when using VR products or services. And, in case of any problems or disputes, the merchant communicates and solves them promptly to maintain users' trust and satisfaction.

## 5. Conclusion

The article systematically reviews the similarities and differences between VR marketing communication models and traditional marketing communication models in terms of effects, costs, advantages, and limitations. This article provides valuable discoveries and conclusions, providing a comprehensive and objective view for understanding and evaluating the effectiveness and applicability of VR marketing. This article selects two representative and influential VR marketing cases and analyzes their effects. The VR marketing communication model provides an immersive, interactive, and fascinating experience, which can effectively improve the brand image and advertising effect. They enable consumers to experience products and services more deeply, thereby increasing conversion rate and customer loyalty. Although virtual reality marketing has great advantages, there are also challenges, such as user acceptance, poor user experience, unclear consumer needs, and damage to consumer rights. It requires the company to improve and optimize the strategy, strategy, and legal aspects. It is necessary to further explore and research to evaluate the effectiveness of VR marketing communication models, balance the innovation and practicality of the VR marketing communication model, and coordinate the relationship between the VR marketing communication model and other marketing communication models.

This study provides a widespread comparison between VR marketing and traditional marketing models, providing a fair prospect for understanding and evaluating the feasibility and efficacy of VR marketing. For practicing professionals, it has expanded unique insights and exposure; for future researchers and practitioners, it is a reliable blueprint and mentor. The value of this research has expanded.

## Authors Contribution

All the authors contributed equally and their names were listed alphabetical order.

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